No. 658,612. Patented Sept. 25, 1900.

W. J. BELL.

TELEPHONE DIRECTORY.

(Application filed May 24, 1900.)

(No Model.)

Fig. 1.

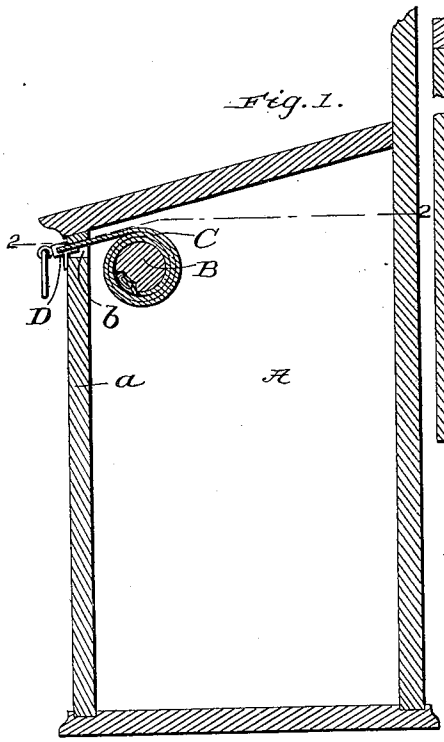


Fig. 2.

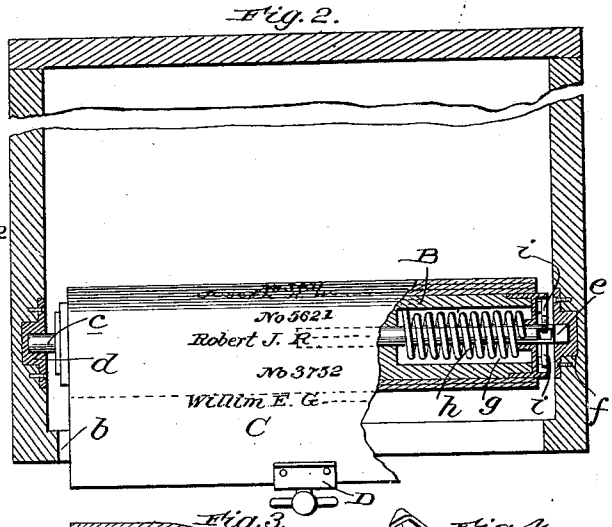


Fig. 3.

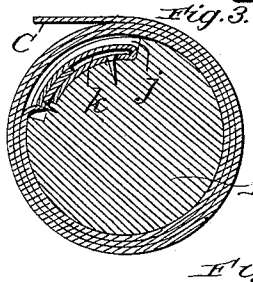


Fig. 4.

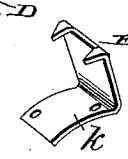


Fig. 5.

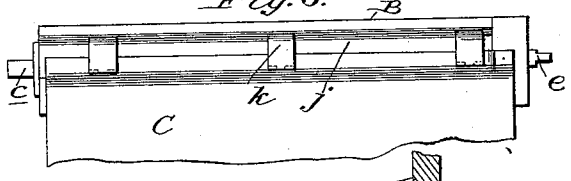


Fig. 6.

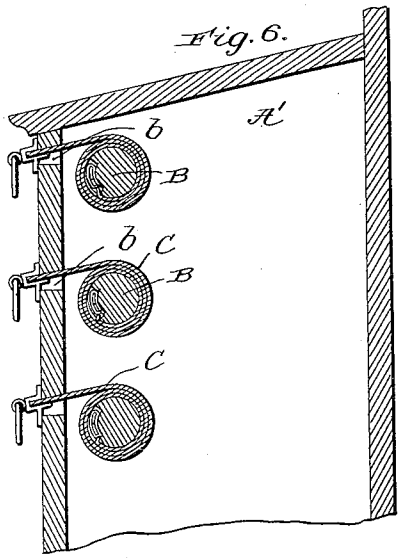
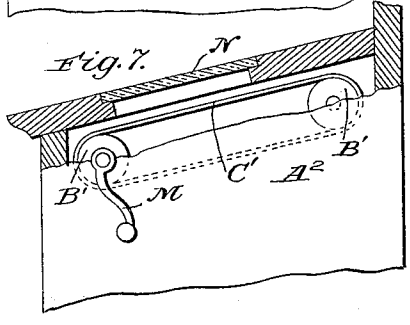


Fig. 7.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM J. BELL, OF BARABOO, WISCONSIN, ASSIGNOR OF ONE-HALF TO HERMAN GROTOPHORST, OF SAME PLACE.

TELEPHONE-DIRECTORY.

SPECIFICATION forming part of Letters Patent No. 658,612, dated September 25, 1900.

Application filed May 24, 1900. Serial No. 17,875. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BELL, a citizen of the United States, residing at Baraboo, in the county of Sauk and State of Wisconsin, have invented new and useful Improvements in Telephone-Directories, of which the following is a specification.

My invention relates to telephone-directories—*i. e.*, alphabetical lists of subscribers on telephone systems. Its novelty and the material advantages which it possesses will be fully understood from the following description and claim when taken in conjunction with the accompanying drawings, in which—

Figure 1 is a vertical section illustrating the battery-box of a telephone, the roller, and the sheet of my improved directory. Fig. 2 is a slightly-enlarged horizontal section taken in the plane indicated by the broken line 2 2 of Fig. 1. Fig. 3 is a transverse section of the roller and sheet thereon. Fig. 4 is a perspective view of one of the clips through the medium of which the sheet is detachably connected to the roller. Fig. 5 is a plan view illustrating the connection of the sheet to the roller. Figs. 6 and 7 are vertical sectional views illustrating modifications.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 5 thereof, A is the battery-box of a telephone, which is of the ordinary construction with the exception that it is provided in its front wall *a* adjacent to its top with a slot *b*, which extends almost the entire width of said wall, and B is a transversely-disposed roller contained in the box A. This roller is provided at one end with a trunnion *c*, journaled in a bearing *d*, secured in one side wall of the box, and at its opposite end is loosely mounted on a shaft *e*, secured at its outer end in a socket *f*, connected to the other side wall of the box. Said roller is also provided at its end adjacent to the socket *f* with a chamber *g* to receive a spring *h* and is equipped with gravitating dogs *i*. The spring *h* is connected to the shaft *e* and the roller in such manner that it will be contracted when the sheet C attached to the roller is drawn outwardly, and hence will operate when the sheet is released to rotate the roller and rewind the sheet thereon. The dogs *i* operate when the sheet is held to engage the shaft *e*, and thereby hold the roller against rotation and the sheet in its extended position.

It will be appreciated from the foregoing that the roller B and its appurtenances are of the well-known Hartshorn type. I desire it understood, however, that I do not confine myself to the specific roller shown and described, as the roller may be mounted in any suitable manner and the spring for actuating the same applied in any approved way without departing from the scope of my invention.

The inner end of the sheet C may be connected to the roller in any suitable manner, although I prefer to recess the periphery of the roller, as indicated by *j*, and arrange in said recess metallic clips *k*, which are bent upon themselves and have their inner arms connected to the roller and their outer arms equipped with barbs to engage the end of the sheet which is interposed between the arms after the manner best shown in Fig. 3.

The sheet C, which is designed to bear the names of the subscribers in alphabetical order and the numbers of their respective telephones, is normally wound upon the roller and extended through the slot *b* in the front wall of the battery-box, as shown in Figs. 1 and 2. It is provided at its outer end with a suitable handle or finger-piece D, which when the sheet is released is designed to engage the front wall of the box A, and thereby serve as a stop to prevent said end from passing into the box.

In using my improved directory it is simply necessary in order to refer to the sheet C and ascertain the telephone-number of a particular subscriber to grasp the handle D and draw the sheet outwardly until the name and number of such particular subscriber appears. The drawing out of the sheet C contracts the spring connected to the roller, and hence it will be seen that when the desired number is ascertained and the handle of the sheet is released the spring will operate to rotate the roller and quickly return the sheet to its normal position. (Shown in Fig. 1.)

The described detachable connection of the sheet to the roller permits of said sheet being readily removed and replaced by a revised sheet whenever the same is necessary.

As will be readily appreciated from the foregoing, my invention is advantageous in that the battery-box of the telephone is util-

ized as an inclosure or casing for the sheet, which forms an adjunct of and is used in conjunction with the telephone, and said sheet when not in use is entirely contained in the inclosure, and hence is not liable to be soiled by dust or torn or damaged by persons using the telephone. It will also be observed that all that is necessary to ascertain the telephone-number of a particular subscriber is to draw out the sheet C and refer to the same and then release said sheet, when it will be automatically and quickly returned to its normal position in the box. It follows from this that the number of a particular subscriber may be ascertained much more quickly and easily than when the usual book or series of swinging cards are employed.

The construction shown in Fig. 6 is designed for use when the telephone system embraces a large number of subscribers. It is similar to that shown in Fig. 1, excepting that the battery-box A′ has three (more or less) slots *b* and three (more or less) rollers B and sheets C are provided, the names of the subscribers being divided alphabetically between the several sheets.

In Fig. 7 is shown a construction in which the sheet C′, in the form of an endless belt, is passed around two rollers B′, one of which has its shaft extended outside the battery-box A^2 and provided with a crank M, whereby it will be seen that the sheet may be moved below a plate of glass N, arranged in the top of the box. In this construction when a person desires to ascertain the number of a particular subscriber he has but to turn the crank M, and thereby move the sheet C′ until the name of such particular subscriber and the number of his telephone appears beneath the glass N.

Having thus described my invention, what I claim is—

The combination with a box provided in one of its walls with a slot; of a spring-roller contained in said box, and having the recess *j* in its periphery, a sheet extending through the slot of the box and bearing the names and telephone-numbers of the subscribers of a telephone system or other desired matter, and the metallic clips *k* arranged in the recess *j* of the roller, and bent upon themselves, and having inner arms connected to the roller, and outer arms equipped with barbs to engage the end of the sheet interposed between the arms, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM J. BELL.

Witnesses:
HERMAN GROTOPHORST,
SARAH WOOD.